

***Fil-Tech suggests the following guidelines*** regarding the “shelf life” of quartz crystal sensors and the environmental conditions required for storing quartz crystals. Shelf life refers to the time a device can be safely stored without harmful effects to its performance.

Quartz crystals are surface active and frequency based devices. Their self life generally applies to any changes in their electrode chemical composition and resonant frequency. Therefore, the storage environment of crystals will dictate the shelf life of the sensors. By following the guidelines below, quartz crystals can be stored almost indefinitely depending on the electrode material selected. The QI8010 gold crystal is the most stable due to the inert nature of the gold electrode. The QI8008 and QI8009 are slightly more sensitive to chemical exposure and moisture due to their respective Stress Relieving Alloy<sup>®</sup> and silver electrodes.

**Temperature:**

Standard room temperature between 20 and 24 degrees C.

**Humidity:**

Standard room humidity between 40% and 60%.

**Chemical Exposure:**

Do not store crystals in the presence of volatile materials, oils, sulfur, halides, ozone, iodine and oxidizing agents.

**Particulate Exposure:**

Do not store crystals in particulate laden environments. If this can not be avoided seal containers properly.

**Mechanical Exposure:**

Do not store crystals in areas with excessive mechanical vibrations.

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# Shelf Life & Storage of Quartz Crystals

**Fil-Tech<sup>inc.</sup>**

6 Pinckney Street, Boston, MA 02114

[www.filtech.com](http://www.filtech.com)

[paula@filtech.com](mailto:paula@filtech.com)

Call: 800-743-1743

Tel: 617-227-1133

Fax: 617-742-0686